

Box 1.1: How did the Global Recession Alter Singapore's Export Profile?

World merchandise exports contracted by 23 per cent in 2009 - the sharpest decline since World War II. Singapore's merchandise trade dropped by an even greater magnitude of 27 per cent in the first half of 2009 compared to the same period in 2008. Singapore's domestic exports were particularly hard-hit, falling by 29 per cent. While global trade flows have recovered from the lows of the first half of 2009, it is useful to consider if the shock brought about by the global recession altered Singapore's export profile significantly.

To understand how trade patterns evolved with the crisis, we take a detailed look at Singapore's domestic exports ¹. Specifically, we examine the changes in the top 10 categories of domestic exports, as well as Singapore's top 10 trading partners, between the second half of 2007 and the second half of 2009 ². Exhibit 1 lists the top 10 types of domestic exports at a broad level (viz., at the 2-digit level of the Harmonised System codes).

Exhibit 1: Top 10 Domestic Export Categories in Second Half of 2009 (2 Digit HS Code)

Rank		HS	Product	Domestic Exports			Market Share of Domestic Exports		
2H 07	2H 09			2H07	2H09	Growth	2H07	2H09	Change
				\$ Million		% p.a.	%		Percentage Point
1	1	85	Electrical machinery, Sound recorders etc	31,600	23,709	-13.4	25.9	21.5	-4.4
2	2	27	Mineral fuel oils etc	24,069	22,724	-2.8	19.7	20.6	0.9
3	3	84	Nuclear reactors boilers etc & parts ³	19,279	16,785	-6.7	15.8	15.2	-0.6
4	4	29	Organic chemicals	8,662	7,607	-6.3	7.1	6.9	-0.2
5	5	39	Plastics & articles	5,396	4,510	-8.6	4.4	4.1	-0.3
6	6	30	Pharmaceuticals	3,586	3,374	-3.0	2.9	3.1	0.1
7	7	90	Optical photographic measuring instruments	3,172	3,246	1.1	2.6	2.9	0.3
9	8	71	Natural pearl, Precious stones & metals etc	1,324	1,844	18.0	1.1	1.7	0.6
16	9	89	Ships, Boats & floating structures	446	1,761	98.6	0.4	1.6	1.2
8	10	38	Miscellaneous chemical products	1,396	1,684	9.8	1.1	1.5	0.4

Source : International Enterprise Singapore

Structural changes within the electronics sector?

The top domestic export category of electronics saw the steepest decline between 2007 and 2009, with the category of "Electrical machinery, sound recorders etc." falling by 13 per cent. "Postponable goods" such as electronics components have very long supply chains. A drop in final demand sends shock waves through the entire supply chain, resulting in a sharper decline in the demand for the components than what would be expected by considering the drop in final demand.

¹ Ideally, this analysis should have been replicated for both domestic exports and exports of services. However, international trade in services statistics are released with a 2 year lag and 2009 figures will only be available next year.

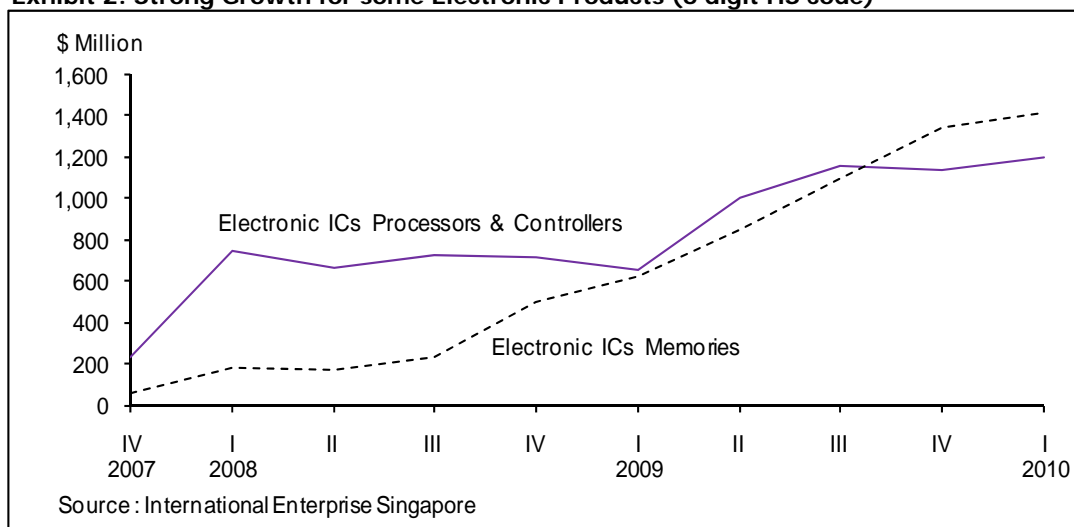
² We have chosen the second half of 2007 as a starting point for our analysis because it presents the pre-crisis conditions. In addition, comparing second half of 2007 and 2009 would strip out seasonal effects.

³ Hard disk drives and printer cartridges make up the bulk of domestic exports under HS 84.

As a result, the share of these exports in Singapore's total domestic exports fell by more than 4 percentage points over the period of consideration. (In comparison, electronics manufacturing fell by 2.1 per cent per annum between 2007 and 2009.)

On the surface, these trends suggest a structural shift away from electronics manufacturing and exports towards other exports such as chemicals (HS 27 and 29) and pharmaceuticals (HS 30). However, a finer examination of the types of electronics exports indicates that the more significant structural shifts could be occurring within electronics. Notably, exports of new product categories such as electronic integrated circuits processors, controllers and memories surged from \$285 million in the fourth quarter of 2007 to \$2.5 billion in the fourth quarter of 2009 ([Exhibit 2](#)). As a result of such strong growth, exports of these two products accounted for 4.3 per cent of total domestic exports by 2009, up from hardly any trades two years before. Over the same period, exports of lower-value electronics products such as printer parts have collapsed, reflecting the steep decline in the production of these products in Singapore.

Exhibit 2: Strong Growth for some Electronic Products (6 digit HS code)



In other words, the decline in electronics products between 2007 and 2009 masks significant changes within the electronics sector as the sector continues to move up the value chain. Instead of being in a state of long-term decline, the electronics sector remains capable of structural renewal. This contradicts the fairly common view of a hollowing out of the electronics sector, which is specific to some products only.

More broadly, the shock to trade brought about by the global recession did not alter the profile of Singapore's domestic exports significantly.

From [Exhibit 1](#), we also observe that the top 10 types of domestic exports (which account for about 80 per cent of Singapore's total domestic exports) barely changed. Of the 10 top domestic exports in the second half of 2007, 9 remained in the top 10 in the second half of 2009, with most of these remaining in the same position.

We can make the following observations.

First, the shock to trade resulting from the global recession was fairly broad-based, hitting almost all of our top 10 domestic exports. While electronics suffered the most with a 13 per cent decline, most of the other domestic exports also dropped by magnitudes ranging from 3 per cent to 9 per cent.

Second, the lack of significant change in the types of domestic exports should not be too surprising. Singapore's domestic exports reflect the output of Singapore's manufacturing industry; in fact, external demand accounts for about 90 per cent of Singapore's manufacturing value add. Since the structure and profile of the manufacturing sector is unlikely to change quickly, due to long lead times in setting up new plants and ramping up production, the product mix of Singapore's domestic exports is unlikely to change very quickly too.

Third, over the period of consideration, only one type of domestic export – “Ships, boats and floating structures” – grew significantly, rising from Singapore's 16th largest domestic export in 2007 to become the ninth largest domestic export by 2009. These changes reflected very strong growth in the marine and offshore engineering sector in recent years and was largely due to exports of Drilling and Production Platforms (i.e., oil rigs), which rose from \$0.4 billion to \$1.4 billion. Markets for these exports have included emerging and developing countries such as Mexico, Ukraine and Equatorial Guinea. Many of these orders were secured before the global recession, when the sector was booming and demand was strong. However, there are now concerns of oversupply and the pace of export growth is unlikely to be sustained.

Domestic exports to traditional partners such as G3 and ASEAN fell, while exports to China and new trading partners such as Panama gained prominence.

Approximately three-quarters of Singapore's total domestic exports go to the top 10 export destinations. 9 of the top 10 destinations in 2007 remained among the top 10 in 2009. However, the changes in relative positioning were more marked compared to the changes in the export basket (Exhibit 3).

Exhibit 3: Top 10 Domestic Export Markets

Rank		Country/Region	Domestic Exports			Market Share of Domestic Exports		
2H07	2H09		2H07	2H09	Growth	2H07	2H09	Change
			\$ Million		% p.a.	%		Percentage Point
1	1	EU-27	16,837	13,088	-11.8	13.8	11.9	-1.9
4	2	Hong Kong	11,651	11,874	1.0	9.5	10.8	1.2
3	3	Malaysia	12,170	10,820	-5.7	10.0	9.8	-0.2
5	4	China	10,004	9,626	-1.9	8.2	8.7	0.5
2	5	United States	13,166	8,486	-19.7	10.8	7.7	-3.1
6	6	Indonesia	9,103	7,809	-7.4	7.5	7.1	-0.4
8	7	Australia	5,563	5,416	-1.3	4.6	4.9	0.4
7	8	Japan	6,128	5,035	-9.4	5.0	4.6	-0.5
13	9	Panama	3,237	4,630	19.6	2.7	4.2	1.5
10	10	Taiwan	3,850	4,177	4.2	3.2	3.8	0.6

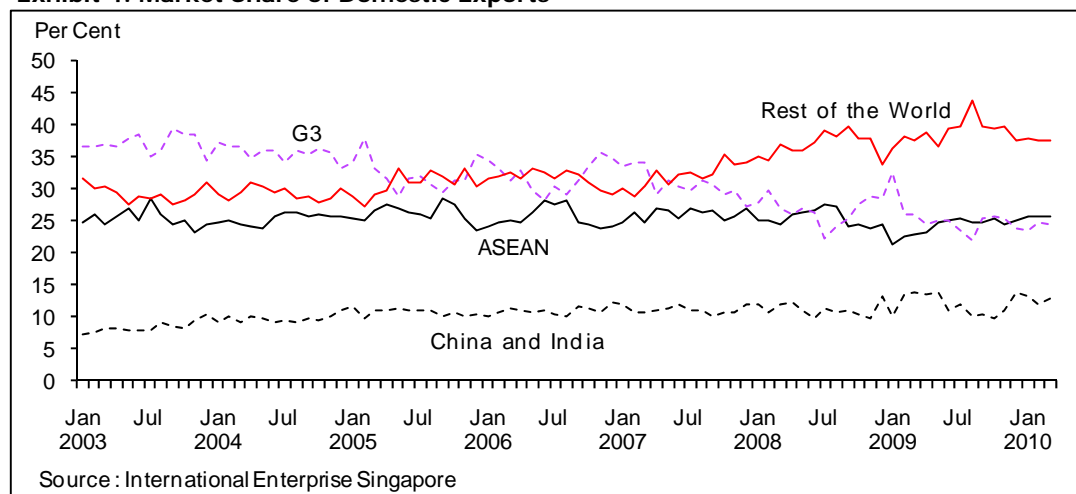
Source : International Enterprise Singapore

We can make the following observations.

First, while domestic exports to most destinations declined in the period due to global recessionary conditions, the exports to the developed economies fell much more. As a result, the US, which was the second-largest market for Singapore's domestic exports in 2007, fell to fifth place, while Japan fell from seventh to eighth place. In contrast, Hong Kong moved up two positions to become Singapore's second-largest export market after the EU.

Second, these changes between 2007 and 2009 reflected longer-term changes in Singapore's export markets. While G3 economies accounted for almost 40 per cent of Singapore's domestic exports in 2003, they only accounted for 25 per cent in 2009. In the same period, ASEAN kept pace with overall growth and continued to account for a quarter of total domestic exports. In contrast, growth in exports to China and India outstripped ASEAN. As a result, China and India accounted for 12 per cent of Singapore's total domestic exports, compared to 8.3 per cent in 2003 ([Exhibit 4](#)).

Exhibit 4: Market Share of Domestic Exports



Third, during the period, only one new export destination entered the ranks of the top 10, viz. Panama. Domestic exports to Panama accounted for 4.2 per cent of Singapore's total domestic exports in 2009. However, exports to Panama are concentrated, with exports of fuel oil (for Panamanian-registered ships) and organic chemicals constituting 77 per cent and 23 per cent of total exports to Panama respectively. Exports of organic chemicals, in particular, rose from \$4.0 million to \$1.1 billion between 2007 and 2009, partly reflecting the effect of the Panama-Singapore FTA which came into force in July 2006, which eliminated Panama's import tariffs on organic chemicals from Singapore.

The global crisis did not significantly erode Singapore's market share in key export markets.

Between 2007 and 2009, Singapore's domestic exports maintained their market share among the total imports of the EU (0.4 per cent of total imports) and Malaysia (11 per cent). Singapore's share of China's imports fell, but this was partly counterbalanced by a rise in Singapore's share of Hong Kong's imports ([Exhibit 5](#)).

Exhibit 5: Market Share of Imports to Our Key Trading Partners

Country/Region	Total Imports			Singapore's Market Share		
	2007	2009	Growth	2007	2009	Change
	US\$ Billion		% P.A.	%		Percentage Point
EU-27	5,497	4,617	-8.4	0.4	0.4	0.0
Hong Kong	368	347	-2.8	3.9	4.1	0.3
Malaysia	146	123	-8.1	10.5	10.5	0.0
China	956	1,006	2.6	1.4	1.2	-0.1
United States	2,020	1,604	-10.9	0.9	0.7	-0.2

Source : Various Official Sources

Singapore's share of US imports fell from 0.9 per cent to 0.7 per cent. This decline was primarily due to the sharp decline in electronics domestic exports. As electronics domestic exports made a third of Singapore's domestic exports to the US, the collapse in US demand affected Singapore more severely than other countries exporting to the US. However, electronics domestic exports have since rebounded sharply as US business spending on information processing equipment increased. As business conditions and earnings improved, investments previously postponed have resumed and this uptrend has been boosted by the corporate IT replacement cycle.

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